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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,400	10/05/2000	Taku Ichiryu	198045US3	1882

7590

06/30/2006

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EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT

PAPER NUMBER

3745

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/680,400	ICHIRYU, TAKU	
	Examiner	Art Unit	
	Christopher Verdier	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5-5-03, 4-11-06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's amendment dated April 11, 2006 has been carefully considered but is non-persuasive. Claims 1-2 and 5-6 are pending. Applicant has stated that a new figure 5 which reverts back to the original figure is being submitted in order to overcome the drawing objection set forth in the Office action of January 11, 2006. This is believed to be an oversight, because replacement figure 2 has been submitted by Applicant, which reverts back to original figure 2. The drawing objection set forth in the Office action of January 11, 2006 is overcome by replacement figure 2. The specification has been amended in order to overcome the objection under 35 USC 132(a). Claim 4 has been canceled, thus rendering moot the rejections of claim 4 under 35 USC 112, first and second paragraphs. Correction of these matters is noted with appreciation.

Applicant's argument that in German Patent 196 05 068, there is no evidence that the bolt holes 29, 30 extend tangentially, has been carefully considered. The German Patent '068 is silent as to this feature. However, this feature is taught by the prior art of record as set forth later below. With regard to Applicant's argument that amended claims 1 and 2 define over the combination of Applicant's Prior Art Figure 8 and Swiss Patent 171,458, the examiner agrees. However, the claims are open to the grounds of rejection set forth below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Patent 196 05 068 in view of Applicant's Prior Art Figures 8-9. German Patent 196 05 068 (figure 1) discloses a fastening arrangement for a split casing assembled by fastening a plurality of casing segments, comprising a first casing segment 28 and a second casing segment 26 assembled together by joining unnumbered joint faces of the respective segments, the first and second casing segments being provided with respective bolt holes 30, 29 in such a manner that the bolt hole 30 of the first casing segment and the bolt hole 29 of the second casing segment align with each other and, when the first and the second casing segments are assembled together, form a continuous bolt hole crossing the joint faces and extending tangentially in walls of both casing segments, the walls of the casing segments separating an interior of a hollow casing (formed by the segments) from an exterior of the hollow casing, and the bolt hole 30 in the first casing segment being provided with an unnumbered internal screw thread (adjacent 32), a sleeve 32 having an unnumbered external screw thread and being fitted into the bolt hole 30 of the first casing segment by engaging the external screw thread of the sleeve 32 with the internal screw thread of the bolt hole of the first casing segment, and a fastening bolt 16 provided with an enlarged diameter portion 18 integrally formed on a shaft portion (near 16) of the fastening bolt 16, and passing through the bolt hole 30 of the first casing segment and the sleeve 32 therein, wherein the enlarged diameter portion 18 abuts an end of the sleeve 32 opposite to the joint face and, when a tensile force is exerted on the fastening bolt at the portion between the enlarged diameter portion 18 and the second casing segment 26, the tensile force is first transferred from

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the fastening bolt 16 to the sleeve 32 through the abutment of the enlarged diameter portion 18 and the end face of the sleeve, then transferred from the sleeve to the first casing segment 28 through the engagement of the external screw thread of the sleeve and internal screw thread of the bolt hole 30 and generates a fastening force for pressing the first casing segment 28 against the second casing segment 26. The enlarged diameter portion 18 is integrally formed on the shaft portion (near 16) of the fastening bolt 16 such that the enlarged portion of the fastening bolt is housed in the bolt hole when the enlarged diameter portion abuts the end of the sleeve 32 opposite to the joint face. A diameter of the bolt hole of the first casing segment is enlarged at a portion of the bolt hole of the first casing segment having the internal screw threads as compared with a diameter of the bolt hole of the first casing segment at an outer surface of the first casing segment which does not include the joint face of the first casing segment. Also disclosed is a first casing half 28 and second casing half 26 for a hydraulic machine (a turbine diffuser) having the above features.

However, the German Patent 196 05 068 does not disclose that the continuous bolt hole crossing the joint faces extends tangentially in walls of both casing segments (claim 1), and does not disclose that the continuous bolt hole crossing the joint faces extends tangentially in walls of both casing halves (claim 2).

Applicant's Prior Art Figures 8-9 show a fastening arrangement for a horizontally split casing for a hydraulic machine (a turbine casing) including first 210a and second 220a casing segments/halves joined together by joining joint faces, with the first and second casing halves

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being provided with bolt holes 210c, 220c that are aligned with each other when the first and second casing halves are assembled, to form a continuous bolt hole crossing the joint. The continuous bolt hole crossing the joint faces extends tangentially in walls of both casing segments/halves, for the purpose of inherently evenly distributing the clamping force of the bolt relative to the segments/halves.

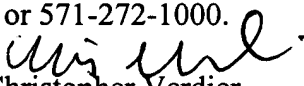
It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the casing arrangement of German Patent 196 05 068 such that the continuous bolt hole crossing the joint faces extends tangentially in walls of both casing segments/halves, as taught by Applicant's Prior Art Figures 8-9, for the purpose of inherently evenly distributing the clamping force of the bolt relative to the segments/halves.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C.V.
June 21, 2006


Christopher Verdier
Primary Examiner
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